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Learning and Teaching in Portugal: An Analysis of TALIS 2013

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Abstract

The OECD Teaching and Learning International Survey (TALIS) is the largest international survey of teachers. Among other aspects, TALIS aims to identify the teaching strategies adopted by teachers, as well as the teaching beliefs they hold. In this paper it is proposed to (i) analyze the TALIS 2013 data regarding the teaching strategies used in the classroom by Portuguese teachers; (ii) compare the teaching strategies adopted by Portuguese teachers with those used by the other European teachers; (iii) characterize Portuguese teachers' teaching and learning beliefs, and (iv) compare the teaching and learning beliefs held by Portuguese teachers with those held by the other European teachers.

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1. Introduction: a short note about teachers' beliefs and its relation to teaching practices

Teachers' beliefs about teaching and learning play an imperative role in the classroom practices adopted by each teacher and in their own professional growth (Kuzborska, 2011). It is known for a long time that teachers make decisions about classroom instruction according to the beliefs they hold about teaching and learning (e.g., Harste & Burke, 1977). Beliefs about teaching and learning influence teachers' aims, resources, classroom interaction patterns, their students, and ultimately the schools they work in (Kuzborska, 2011). OECD (2014, p. 151) reinforces the importance of teachers' beliefs about teaching and learning, stating that teachers "*tend to structure their classrooms according to their beliefs about effective teaching and learning, including how they should carry out their work, how their students learn and how to structure lessons and classrooms to enhance learning*".

Having in mind the relevance of teachers' beliefs and practices for students learning performance, this paper looks into the beliefs European teachers have, as well as into the teaching practices they use in their classrooms. In

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the next two sections we briefly explain what TALIS 2013 consists of and we show how teaching beliefs and teaching practices are measured in this survey. In the following sections we make our aims explicit and present the sample. Next, the results are presented. We conclude with some brief remarks.

2. What is TALIS 2013?

The OECD Teaching and Learning International Survey (TALIS) is the largest international survey of teachers and principals. This survey looks at the working conditions of teachers and at the features that influence effective teaching, such as teachers' initial training and their professional development, the feedback they receive on their teaching, the climate in the classrooms and schools, teachers' satisfaction with their job, as well as the teaching, learning and assessment strategies they use in the classroom. TALIS was conducted for the first time in 2008 in 24 participating countries and economic entities (from now on called countries) and surveyed lower secondary teachers (ISCED level 2, as classified by the International Standard Classification of Education in 1997). In 2013, the second cycle of TALIS was implemented in 34 countries from America, Asia, Europe and Oceania. Some countries also decided to survey their primary teachers (ISCED level 1) and upper secondary teachers (ISCED level 3).

3. How are teachers' beliefs and teaching practices measured in TALIS 2013?

Regarding the beliefs about the nature of teaching and learning, the TALIS 2013 inquired teachers about their agreement (strongly disagree, disagree, agree, strongly agree) with each of the following statements: *(i) my role as a teacher is to facilitate students' own inquiry; (ii) students learn best by finding solutions to problems on their own; (iii) students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved; and (iv) thinking and reasoning processes are more important than specific curriculum content* (OECD, 2013, p. 19).

The teacher's questionnaire inquired teachers about the frequency (in all or nearly all lessons, frequently, occasionally, never or almost never) with which they used eight teaching practices throughout the year in a specific target class from their teaching schedule. These teaching practices are the following: *(i) present a summary of recently learned content; (ii) check students' exercise books or homework; (iii) refer to a problem from everyday life or work to demonstrate why new knowledge is useful; (iv) let students practice similar tasks until teacher knows that every student has understood the subject matter; (v) students work in small groups to come up with a joint solution to a problem or task; (vi) give different work to the students who have difficulties learning and/or to those who can advance faster; (vii) students use ICT for projects or class work; and (viii) students work on projects that require at least one week to complete* (OECD, 2013, p. 24).

4. Aims

In this paper we use TALIS 2013 data and we aim to: (i) characterize low secondary (ISCED level 2) Portuguese teachers' practices; (ii) compare low secondary Portuguese teachers' practices with those used by the other European teachers; (iii) characterize low secondary Portuguese teachers' teaching beliefs, and (iv) compare low secondary Portuguese teachers' beliefs with those of the other European teachers.

5. Sample

Only the data considering ISCED level 2 European teachers were included. A total of 64446 European teachers, from 22 different countries (Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Iceland, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Spain, Sweden, England – United Kingdom and Flanders – Belgium) participated in this survey, including 3628 Portuguese teachers. Only the

answers to the items previously presented in section 3 were taken into consideration. These data were extracted from the OECD TALIS 2013 database[†].

6. Portuguese teachers' beliefs – a comparison with other European teachers

Figure 1 displays the percentages of agreement of Portuguese teachers and other European teachers regarding four statements concerning their teaching and learning beliefs. Portuguese teachers strongly believe that students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved (97%). 92% of the other European teachers also agree or strongly agree with this statement. However, the opinions can differ substantially between countries. For instance, in Italy 31% of the teachers disagree or strongly disagree with this statement, as shown in Table 1.

Table 1. Teachers' beliefs about teaching and learning

	Facilitate students' own inquiry		Finding solutions to problems on their own		think of solutions to practical problems themselves		Thinking and reasoning processes are more important than specific curriculum content	
	Strongly disagree/	Strongly agree/agree	Strongly disagree/	Strongly agree/agree	Strongly disagree/	Strongly agree/agree	Strongly disagree/	Strongly agree/agree
	%	%	%	%	%	%	%	%
Belgium	1.1	98.9	15.5	84.5	7.1	92.9	29.3	70.7
Bulgaria	1.0	99.0	18.2	81.8	6.1	93.9	11.5	88.5
Croatia	5.4	94.6	13.9	86.1	5.4	94.6	9.6	90.4
Cyprus	5.2	94.8	11.0	89.0	3.0	97.0	6.5	93.5
Czech Rep.	8.8	91.2	9.5	90.5	4.0	96.0	13.3	86.7
Denmark	2.3	97.7	8.1	91.9	3.9	96.1	17.1	82.9
Estonia	5.8	94.2	25.1	74.9	4.6	95.4	11.1	88.9
Finland	2.7	97.3	17.8	82.2	6.2	93.8	9.0	91.0
France	8.0	92.0	8.7	91.3	10.9	89.1	28.9	71.1
Iceland	1.9	98.1	9.1	90.9	8.7	91.3	9.5	90.5
Israel	5.4	94.6	11.7	88.3	3.5	96.5	8.6	91.4
Italy	8.5	91.5	40.7	59.3	30.6	69.4	12.6	87.4
Latvia	2.6	97.4	11.2	88.8	3.1	96.9	14.4	85.6
Netherlands	2.1	97.9	15.3	84.7	3.5	96.5	36.0	64.0
Norway	5.5	94.5	47.4	52.6	5.9	94.1	22.0	78.0
Poland	5.7	94.3	13.4	86.6	6.8	93.2	15.5	84.5
Portugal	6.9	93.1	10.6	89.4	3.0	97.0	8.9	91.1
Romania	8.0	92.0	9.6	90.4	6.4	93.6	17.0	83.0
Serbia	3.1	96.9	16.2	83.8	5.7	94.3	16.7	83.3
Slovak Rep.	6.0	94.0	13.4	86.6	5.0	95.0	10.5	89.5
Spain	9.3	90.7	16.5	83.5	16.6	83.4	14.6	85.4
Sweden	16.7	83.3	55.1	44.9	17.8	82.2	17.9	82.1
UK	3.7	96.3	14.3	85.7	4.5	95.5	26.3	73.7

Approximately 95% of the Portuguese teachers believe that students learn best by finding solutions on their own, against nearly 82% of the other European teachers. But, once again, the levels of agreement in different European countries vary largely. 55% of the Swedish teachers disagree or strongly disagree with this view, as well as 47% of the Norwegian teachers and 41% of the Italian teachers.

A large percentage of Portuguese teachers believe that the thinking and reasoning processes are more relevant than specific curriculum content (91%). 83% of the other European teachers have the same opinion. Yet, 36% of the Dutch teachers, 29% of the French teachers, and 29% of the Belgian teachers disagree or strongly disagree with this statement.

[†] TALIS 2013 database available online: http://stats.oecd.org/Index.aspx?datasetcode=talis_2013%20

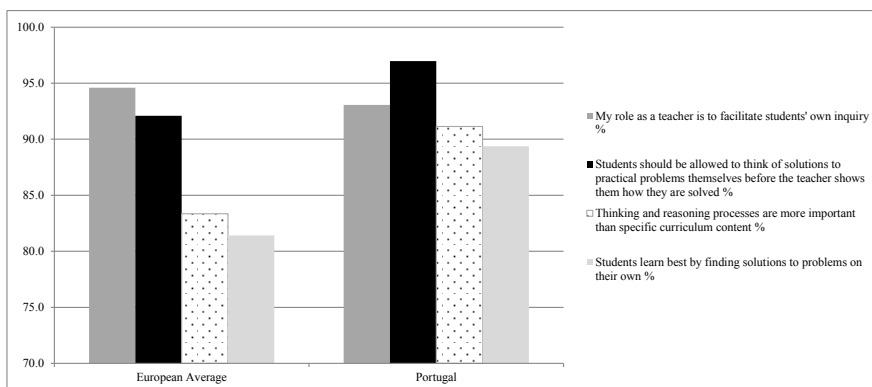


Figure 1. Teachers' beliefs about teaching and learning (percentage of teachers who "agree" or "strongly agree" with the statements)

The only statement where the other European teachers (roughly 95%) and the Portuguese teachers (93%) are closer to agree is the one related to the role of the teacher as a facilitator of students' own inquiry.

7. Portuguese teachers' practices – a comparison with other European teachers

Relevant differences between Portuguese teachers and other European teachers regarding the use of three of the surveyed teaching strategies (Figure 2) were not found. About 70% of all the inquired European teachers (as well as all the inquired Portuguese teachers) report to check their students' exercise books or homework frequently or even in all classes. In what concerns reporting to a daily life problem to underline the importance of new knowledge, 66% of the Portuguese teachers declare to do so, as well as 68% of the other European teachers. 61% of the Portuguese teachers report to allow students to practice analogous tasks until all students understand the topic, and 67% of the other European teachers also declare to have the same practice.

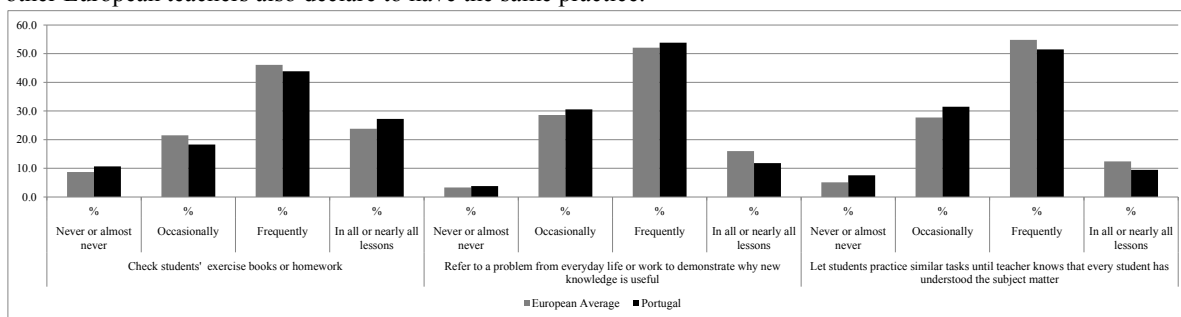


Figure 2. Percentage of teachers who report to: check students' exercise books, refer to a problem from everyday life or work, and let students practice similar tasks until every student has understood the subject matter.

As shown in Figure 3, it is more likely that Portuguese teachers present a summary of recent learned content (85%) than the other European teachers (73%). Regarding the implementation of different learning tasks according to students' difficulties (or absence of these), 47% of the other European teachers report to do so and 52% of the Portuguese teachers also declare to implement this strategy.

According to TALIS 2013 conceptual framework (OECD, 2014), the three last practices – small group work, student use of ICT, and projects that require at least one week to complete - are considered as active practices. Neither of the three shows relevant differences between the frequency of use of these practices by Portuguese teachers and by the other European teachers (Figure 4). Less than half of the inquired teachers (49% of the

Portuguese teachers and 45% of other European teachers) report to implement frequently, or even in all classes, small group work to come up with a joint solution to a problem or a task. Concerning the student use of ICT, around 35% of all inquired European teachers, as well as the Portuguese, declare to promote this practice frequently or in all classes. The less likely to be used active teaching strategy is the implementation of projects that require at least one week to complete. Only roughly 20% of all the participant teachers report the adoption of this practice.

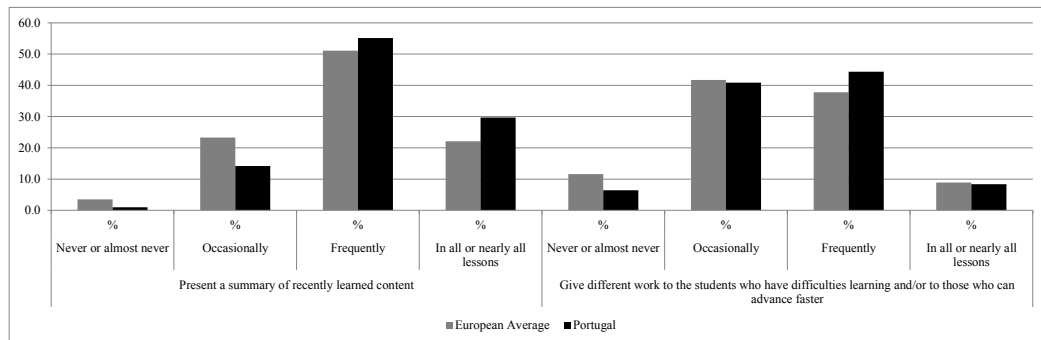


Figure 3. Percentage of teachers who report to present a summary of recently learned content and to give different work to the students who have difficulties learning and/or to those who can advance faster.

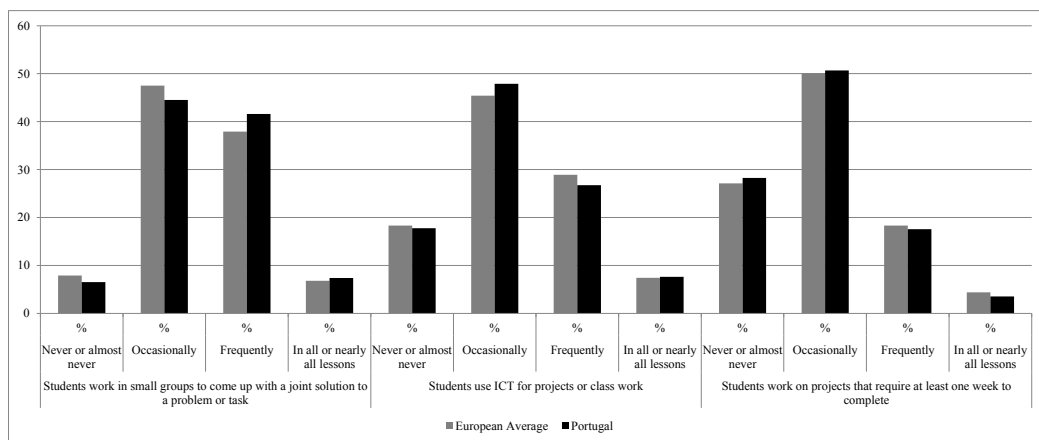


Figure 4. Percentage of teachers who report to promote student: work in small groups, use of ICT, and working on projects that require at least one week to complete.

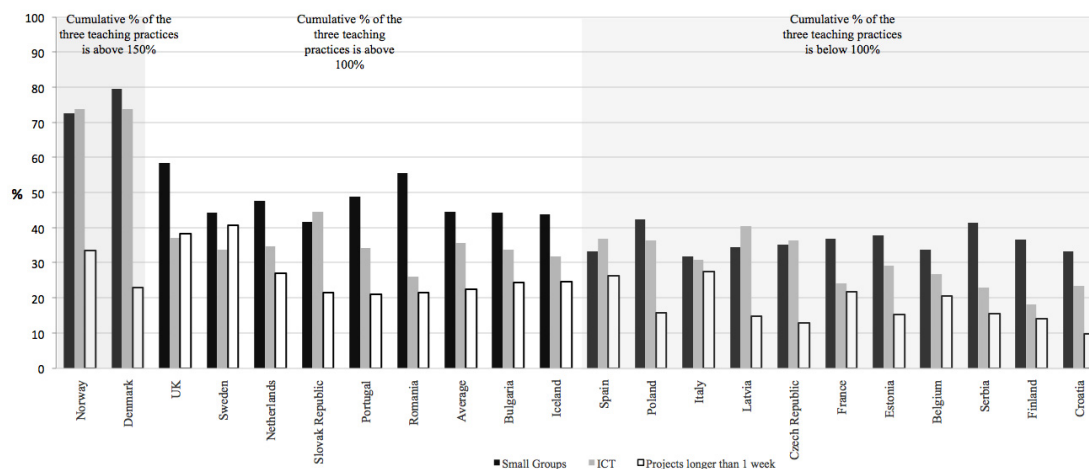


Figure 5. Percentage of teachers who report using small groups, ICT and projects longer than one week “frequently” or “in all or nearly all lessons” (cumulative percentage of the three teaching practices)

Figure 5 shows the proportions of teachers in each country who report using active practices frequently or in all lessons. In 16 out of the 22 analyzed countries, the most frequent active strategy is the promotion of small group work. The active practice least used in 20 out of 22 countries is the development of projects that require at least one week to complete. Only in Sweden and in UK this practice is more frequent than the use of ICT.

It is also possible to divide the countries in three groups: (i) one including the countries with a cumulative percentage of a frequent use of the three teaching practices above 150%. Norway and Denmark are the only two countries in this group, with percentages of implementation of small group work and ICT above 70% each; (ii) in a second group, with a cumulative percentage of the three teaching practices above 100%, we can find eight countries, including Portugal. In this group it is important to underline that at least 20% of the teachers of each of these eight countries report to use frequently each of these three strategies; (iii) finally, eleven countries can be included in a third group, where the cumulative percentage of the three active practices is below 100%. For instance, Finland is included in this group with a cumulative percentage of 69%. In this group it is uncommon to find a strategy that is frequently used by more than 40% of the teachers.

8. Concluding remarks

The results indicate Portuguese teachers hold beliefs about teaching and learning that are in line with an active approach to learning and the promotion of a deep approach to learning. Despite of the small differences between the Portuguese teachers and the other European teachers' teaching beliefs, the most unexpected results rely in the opinion of teachers from specific countries, such as Italy, Sweden, Norway and the Netherlands. In this sense the TALIS 2013 results shed some (new) lights considering the global teaching beliefs and practices of European teachers. However many other related aspects deserve further scrutiny, For instance: what factors influence teachers' beliefs? How do these influence students' performance? Of course several factors influence students' performance, but having in mind that Dutch students are in the Programme for International Student Assessment (PISA) top 10 rank in Mathematics and also very well positioned in the Reading and Science ranks, a reflection about the relationship between teachers' beliefs and student performance in specific countries should be of interest.

Relevant differences were not found regarding the teaching practices used by Portuguese teachers and the other European teachers. Bearing in mind some differences found concerning teachers' beliefs, it could also be expectable to identify some differences in the teaching practices, but these were not found in general terms. Can this be interpreted as an indicator of (un)conscious mismatches between what teachers believe, think they do, and actually

do in their classroom? Furthermore, crossing these results with the ones we found about assessment in Portuguese and other European countries in a recent study also involving TALIS 2013 data (Albergaria-Almeida *et al.*, submitted), it seems that inconsistencies are not only between teachers' theory and practices, but also between the several specific classroom strategies that are used, such as assessment. Since no particular difference between Portuguese teachers and other European teacher was found in the present study, and keeping in mind that an alignment between teaching, learning and assessment strategies is expected, in order to promote effective learning (Biggs, 1999), we would expect that there were no relevant differences concerning assessment strategies. But, our study shows that the frequency of the use of some assessment strategies in Portugal is different from that of other European countries. However, we could not find a matching difference concerning teaching strategies. It would be worthwhile to conduct a qualitative study in order to understand more deeply the complex relationship between teachers teaching theory and practice and also between the different teaching and learning strategies in order to investigate how they are (or not) aligned with the assessment practices in different European countries.

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